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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/333,251	06/15/1999	MICHAEL K. LANDI	26403.0075	3891

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MARTIN G LINIHAN ESQ
HODGSON RUSS ANDREWS
WOODS & GOODYEAR LLP
ONE M&T PLAZA SUITE 2000
BUFFALO, NY 142032391

EXAMINER

SMITH, RUTH S

ART UNIT

PAPER NUMBER

3737

DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/333,251

Applicant(s)

LANDI ET AL.

Examiner

Ruth S Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

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Continued Prosecution Application

The request filed on August 30, 2002 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/333,251 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Objections

Claims 1-53 are objected to because of the following informalities: In the independent claims, the recitation of the subsurface target being located below a surface is redundant in that a subsurface target is inherently located below a surface. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1,7-11,13,14,16-18,21-22,24,26,29,30,33,34,36-40,42-44,46,48-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Kalfas et al. Kalfas et al disclose a system for defining a direction of approach to a subsurface structure. The system includes a wand which comprises a support structure. Figure 2C includes a

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laser light beam which indicates the direction of approach to the target. The fiducials can include any part of the wand including parts made of metal. The metal would provide a radiopaque material. The trajectory and end point of the wand are superimposed on the selected images shown on the display. It should be noted that the image plane of the imager is considered to be the location on the patient where the images are obtained by the imager.

Claims 1,3,7-11,13,16-18,21-22,26,29-30,33,51-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Brabrand. Brabrand discloses a system for defining a direction of approach to a subsurface target. The system includes a support structure which carries a plurality of fiducials. These fiducials are any structure that can function as a reference such as the angle indicators. The fiducials define the approach path relative to the support structure. The system also includes a visible light source that travels along the predetermined path and is indicative of the direction of approach. The system also includes a reflector 46.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-6,12,15,19,20,23,25,27,28,31,32,35,41,45,47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalfas et al. Kalfas et al disclose a system for defining a direction of approach to a subsurface structure. The system includes a wand which comprises a support structure. Figure 2C includes a laser light beam which indicates the direction of approach to the target. The fiducials can include any part of the wand including parts made of metal. The metal would provide a radiopaque material. The trajectory and end point of the wand are superimposed on the selected

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images shown on the display. It should be noted that the image plane of the imager is considered to be the location on the patient where the images are obtained by the imager. Kalfas et al is silent with respect to the materials used for the support. The use of plastics is old and well known in the medical arts and the selection of any of these would have been obvious to one skilled in the art. The selection of the known materials would inherently result in the use of materials having the claimed properties. In the absence of any showing of criticality, the specific shape of the support structure selected would have been an obvious design choice of known equivalents in the art. It is an old and well known expedient in the art to use a mirror to direct a light beam along a non-parallel axis rather than to direct in along a single axis. In the absence of any showing of unexpected results, whether one lined the light beam up directly with the entry point on the patient or lined it up off-axis and used a mirror to direct it to the entry point would have been a matter of ordinary engineering design choice.

Claims 2,4-6,12,14,15,19,20,23-25,27,28,31,32,34,35 rejected under 35 U.S.C. 103(a) as being unpatentable over Brabrand. Brabrand discloses a system for defining a direction of approach to a subsurface target. The system includes a support structure which carries a plurality of fiducials. These fiducials are any structure that can function as a reference such as the angle indicators. The fiducials define the approach path relative to the support structure. The system also includes a visible light source that travels along the predetermined path and is indicative of the direction of approach. The system also includes a reflector 46. Brabrand is silent with respect to the materials used for the support. The use of plastics and metals are old and well known in the medical arts and the selection of any of these would have been obvious to one skilled in the art. The selection of the known materials would inherently result in the use of materials having the claimed properties. In the absence of any showing of criticality, the specific shape of the support structure selected would have been an obvious design choice of known equivalents in the art. It is an old and well known expedient in the art to use a mirror to direct a light beam along a non-parallel axis rather than to direct in along a single axis. In the absence of any showing of unexpected results, whether one

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lined the light beam up directly with the entry point on the patient or lined it up off-axis and used a mirror to direct it to the entry point would have been a matter of ordinary engineering design choice.

Response to Arguments

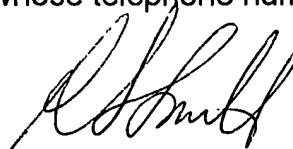
Applicant's arguments filed August 30, 2002 have been fully considered but they are not persuasive. It should be noted that the fiducials as set forth in the claims fail to specifically set forth that the fiducials are markers that are suitable for a particular type of imaging. The term is generally understood to define a reference point and can comprise image detectable markers or any structure that can be used as a reference. The angle indicators of Brabrand do define a path along which a visible light beam travels. Furthermore, the plane of the body being imaged by the imager does coincide with plane on which the fiducials are positioned. The plane of the body being imaged is considered to define the imaging plane of the imager.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth S Smith whose telephone number is (703) 308-3063. The examiner can normally be reached on M-F 5:30 AM- 2:00 PM.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



Ruth S Smith
Primary Examiner
Art Unit 3737

RSS
November 1, 2002